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ABSTRACT

The manual explains and illustrates techniques for orientation and mobility instruction for blind primary age students in the public schools. Techniques are offered for four types of skills: (1) sighted guides (traveling on stairs and through doorways, seating a blind person); (2) protective techniques (following a wall by trailing, lower and upper protective arms); (3) retrieving a dropped object (protecting the head while bending forward, circular and grid hand motions for searching); and (4) cane techniques (grips used with a cane, arm and body position for cane travel, ascending and descending stairs). (CL)

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FROM HERE TO THERE
an Illustrated Manual of Mobility Techniques

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and

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January 1985

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FROM HERE TO THERE:
an Illustrated Manual of Mobility Techniques

OVERVIEW: Orientation and Mobility Instruction in the Public Schools

There are many stories that point out the extreme importance of mobility training for the child with a visual impairment.

> A child who was blind had great ability as a pianist. He could play classical and popular selections from memory - but could never find his way to the piano by himself.
>
> A child who was blind know may facts about the history and geography of the Roman Empire - but was not able to travel from his home to the mail box on the corner or to the store two blocks away.

Obviously academics alone are of little value if the child cannot move around the environment with some skill and ease. Children who learn to travel independently generally gain more in self-confidence and social growth than children who must depend on others to get from here to there. In the public schools of the 80's, children who are visually impaired are often mainstreamed into regular classes before they possess the necessary orientation and mobility skills. These skills must be

taught gradually over a long period of time by an Orientation and Mobility Specialist. Formal instruction with a sequenced curriculum, taking into account the child's age, abilities, handicaps, and needs must be taught by the Orientation and Mobility Specialist and reinforced by practice. Orientation and Mobility Curriculum for a visually impaired student might include body awareness and movement, environmental awareness, conceptual skills, sensory training, pre-cane and cane travel skills. The ultimate goal of any Orientation and Mobility Curriculum is to teach the student safe, independent and efficient travel skills that are consistent with the student's academic setting or ability and the degree of visual impairment.

SCOPE AND SEQUENCE:

An Orientation and Mobility Specialist in a public school system often needs to teach the parents, teachers and classmates of a mainstreamed blind student how to correctly assist the visually impaired student get from here to there. When a blind student is mainstreamed into a classroom where the teacher has had no experience with students who are visually impaired, it is essential that the teacher be given some guidance concerning mobility. Often a teacher or a student must know how to be a sighted guide for the visually impaired student. Therefore there are illustrations and simple rules concerning Sighted Guide Techniques in Section I of this manual.

The teacher and students will also need to understand the protective techniques that the mobility instructor

will be teaching the blind student. Therefore Section II of this manual illustrates some of the common protective techniques used by the student who is visually impaired. Other individuals in the school need to know that blind students should be encouraged to independently and safely retrieve a dropped object. Therefore illustrations of various techniques for locating a dropped object are included in Section III.

As the blind student begins to use the cane, the regular classroom teacher needs to be aware of proper techniques. Therefore pictures and basic rules of cane usage are also included in this manual in Section IV.

This manual is NOT a substitute for formal instruction by an Orientation and Mobility Specialist. It is intended to be used as a reinforcer or reminder of specific techniques that the Orientation and Mobility Specialist may have taught the blind student, the student's classmates and the adults who work with the student.

SUGGESTIONS FOR USE:

To effectively teach primary age students, simplification and reinforcement is necessary. The "sighted guide" section of this manual of illustrations, with each one accompanied by simple rules, can be used with children as young as kindergarten age. After a demonstration by the Orientation and Mobility Specialist, half of the children in the class may be blindfolded and the other half will be sighted guides. Then roles may be reversed. Needless to say, if stairs

are attempted, adult "spotters" must be there to ensure safety. Experiences under a blindfold will help the sighted child understand the difference between appropriate and inappropriate methods of helping a blind person. Using the pictures as a "coloring book" will reinforce the correct methods and concepts. In a pre-school situation the classroom aides may be numerous and ever-changing. They often have no training or experience in teaching a visually impaired child with his unique needs. After in-service by the Orientation and Mobility Specialist, selected pictures might be posted in the classroom as a reminder. The blind student needs to be among adults who all demonstrate a consistency of expectations and techniques in helping him learn how to get from here to there.

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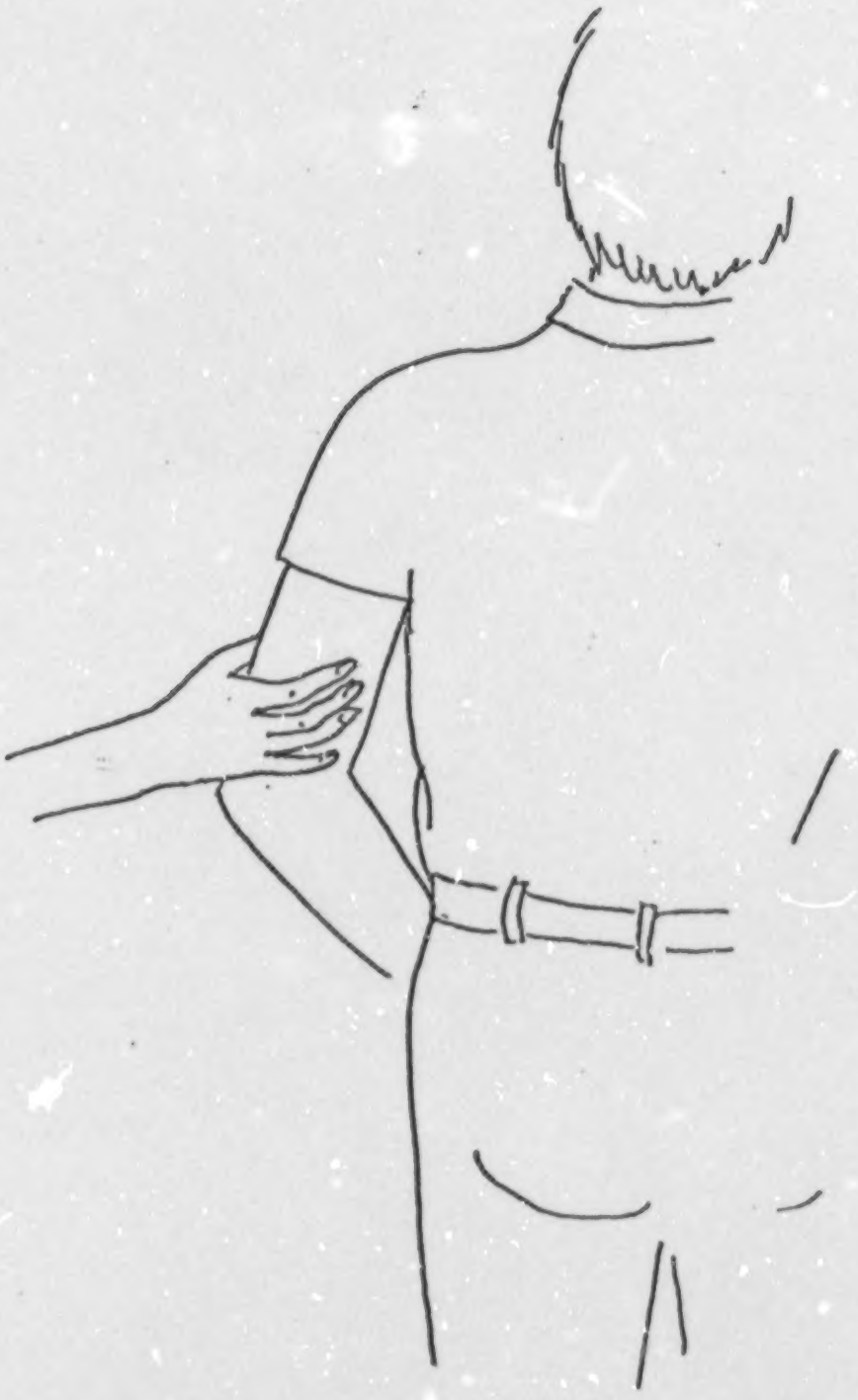
SECTION I - SIGHTED GUIDE

1

GRIP USED WITH SIGHTED GUIDE - BACK VIEW

1. The blind person holds onto the sighted guide's arm.
2. The blind person holds onto the sighted guide just above the guide's elbow.
3. The fingers of the blind person are on the body side of the sighted guide's arm.
4. The thumb of the blind person is not on the body side of the sighted guide's arm.

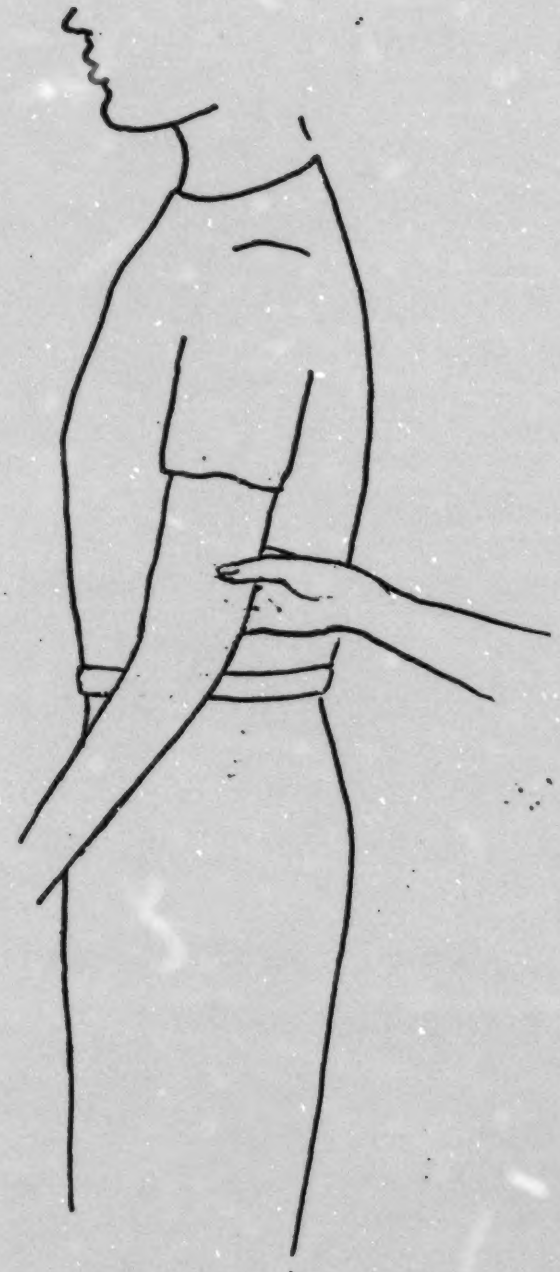


GRIP USED WITH SIGHTED GUIDE - BACK VIEW

3

GRIP USED WITH SIGHTED GUIDE - SIDE VIEW

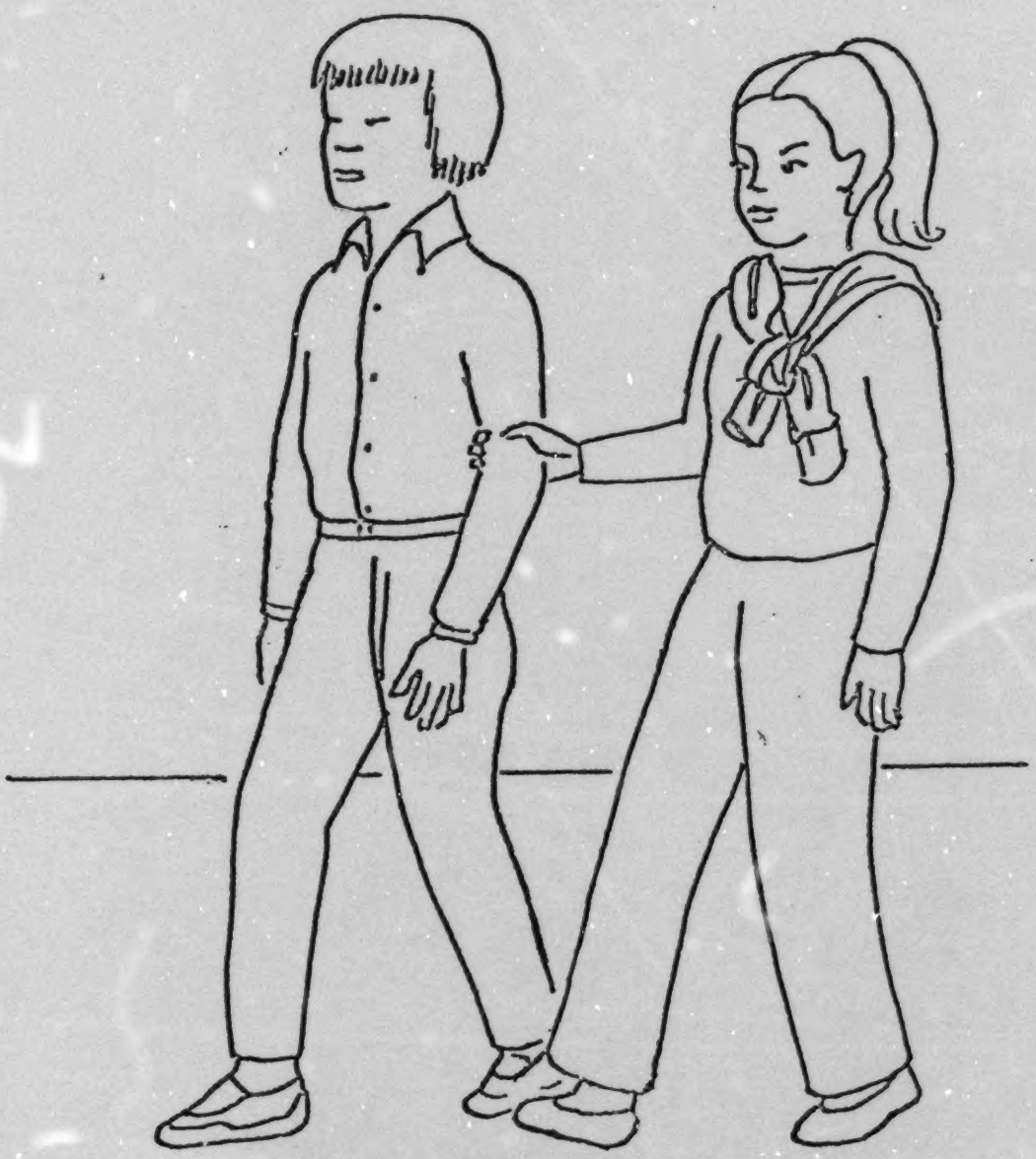
1. The blind person holds onto the sighted guide's arm.
2. The blind person holds onto the sighted guide just above the guide's elbow.
3. The fingers of the blind person are on the body side of the sighted guide's arm.
4. The thumb of the blind person is not on the body side of the sighted guide's arm.



GRIP USED WITH SIGHTED GUIDE - SIDE VIEW

SIGHTED GUIDE WITH A BLIND PERSON

1. The blind person holds onto the sighted guide's arm.
2. The arm used by the blind person to hold onto the sighted guide should be bent at a 90 degree angle (L).
3. The blind person holds onto the sighted guide just above the guide's elbow.
4. The fingers of the blind person are on the body side of the sighted guide's arm.
5. The thumb of the blind person is not on the body side of the sighted guide's arm.
6. The blind person walks one-half step behind the sighted guide, for protection.
7. The sighted guide keeps his arm relaxed and next to his body.
8. The sighted guide must walk so the blind person does not stumble or bump into anything.
9. The sighted guide never pushes or pulls the blind person.

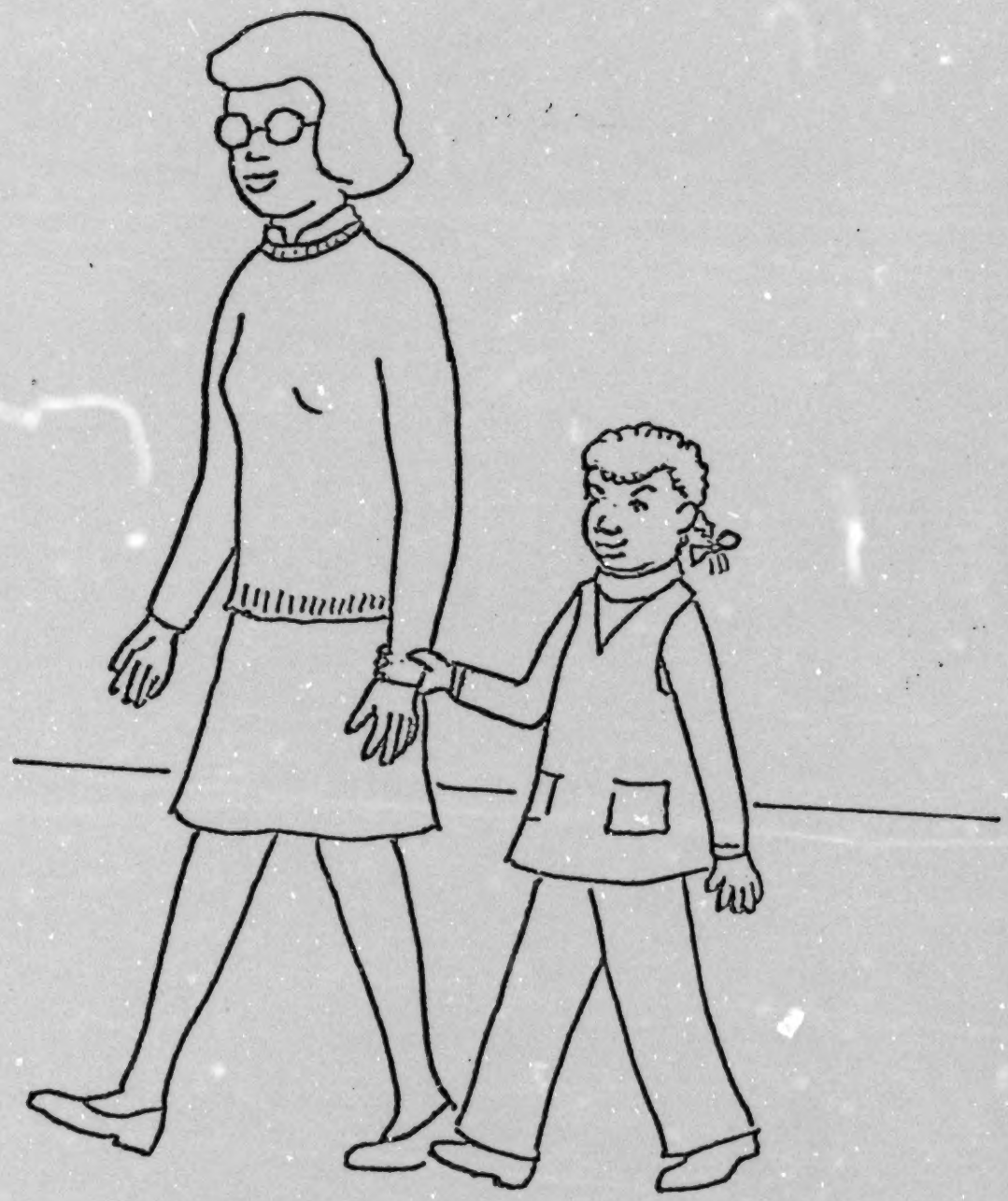


SIGHTED GUIDE WITH A BLIND PERSON

7

SIGHTED GUIDE WITH A SHORT BLIND PERSON

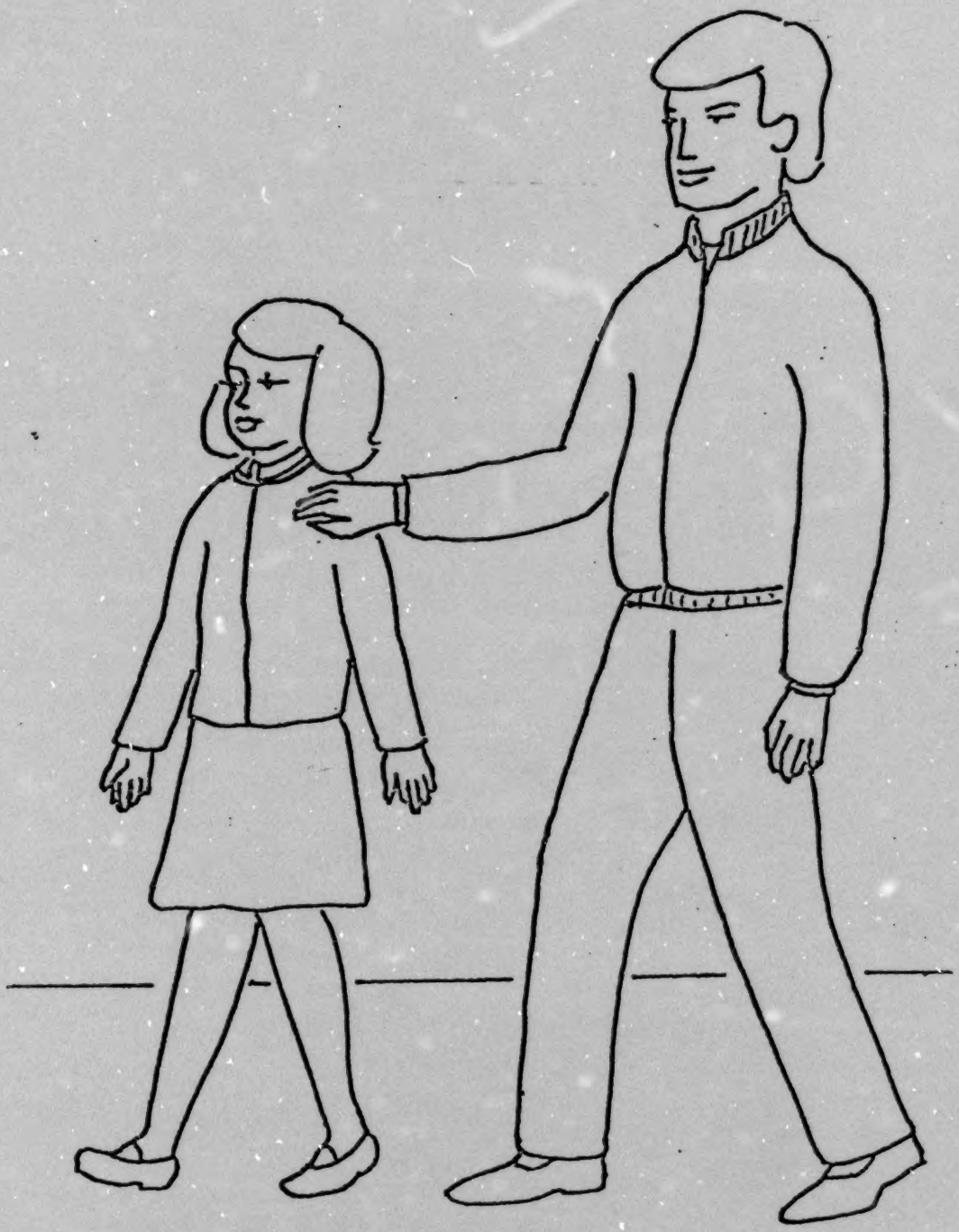
1. The blind person holds onto the sighted guide's arm.
2. The arm used by the blind person to hold onto the sighted guide should be bent at a 90 degree angle (L).
3. The blind person holds onto the sighted guide's arm at a comfortable location.
4. The fingers of the blind person are on the body side of the sighted guide's arm.
5. The thumb of the blind person is not on the body side of the sighted guide's arm.
6. The blind person walks one-half step behind the sighted guide for protection.
7. The sighted guide keeps her arm relaxed and next to her body.
8. The sighted guide must walk so the blind person does not stumble or bump into anything.
9. The sighted guide never pushes or pulls the blind person.



SIGHTED GUIDE WITH A SHORT BLIND PERSON

SIGHTED GUIDE WITH A TALL BLIND PERSON

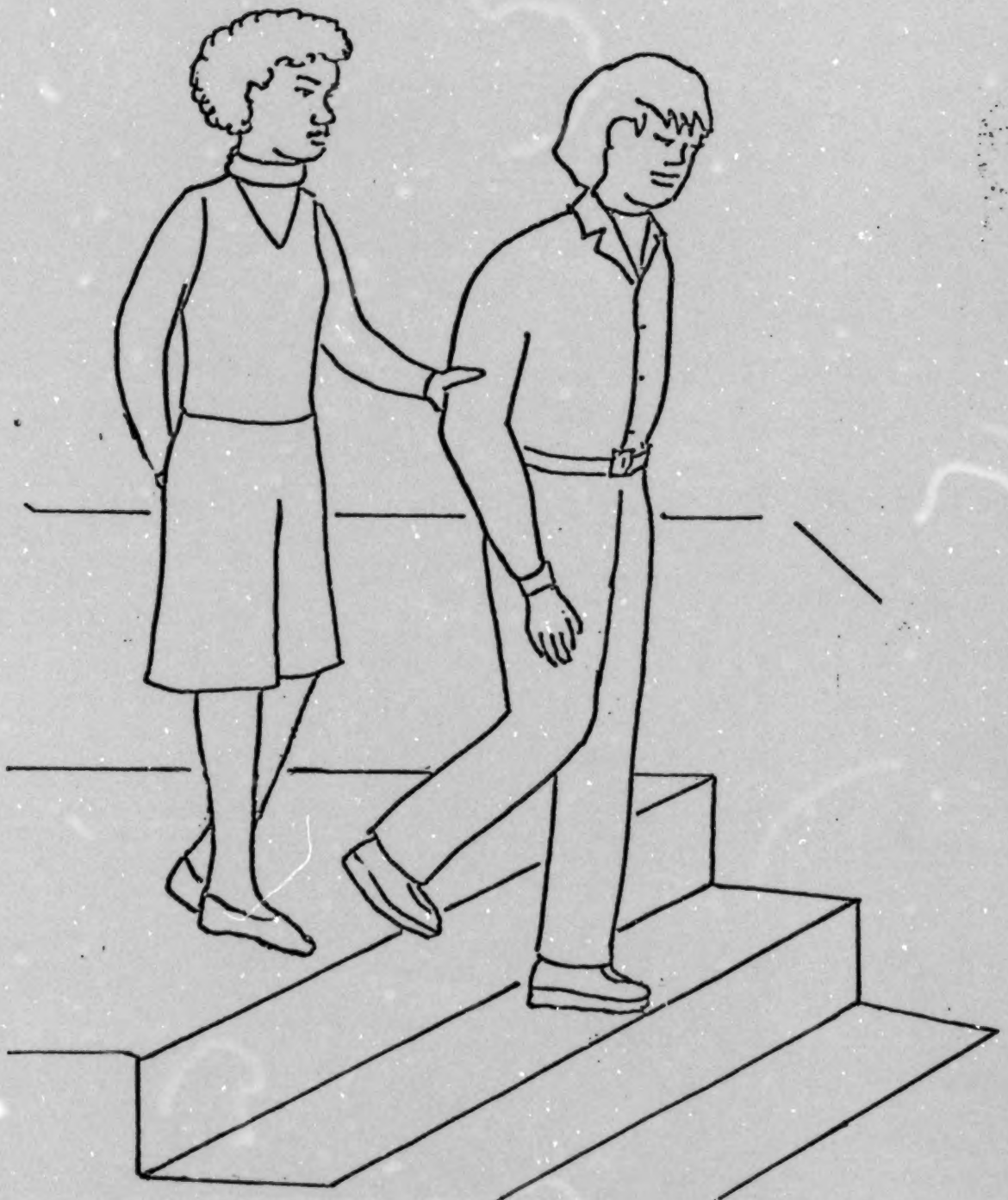
1. The blind person contacts the sighted guide on the shoulder.
2. The arm used by the blind person to hold onto the sighted guide should be bent at a 90 degree angle (L).
3. If the conventional hand-arm position is to low a possible alternative is to grasp the sighted guides shoulder.
4. The blind person walks one-half step behind the sighted guide, for protection.
5. The sighted guide must walk so the blind person does not stumble or bump into anything.
6. The sighted guide never pushes or pulls the blind person.



SIGHTED GUIDE WITH A TALL BLIND PERSON

SIGHTED GUIDE: TRAVELING ON STAIRS

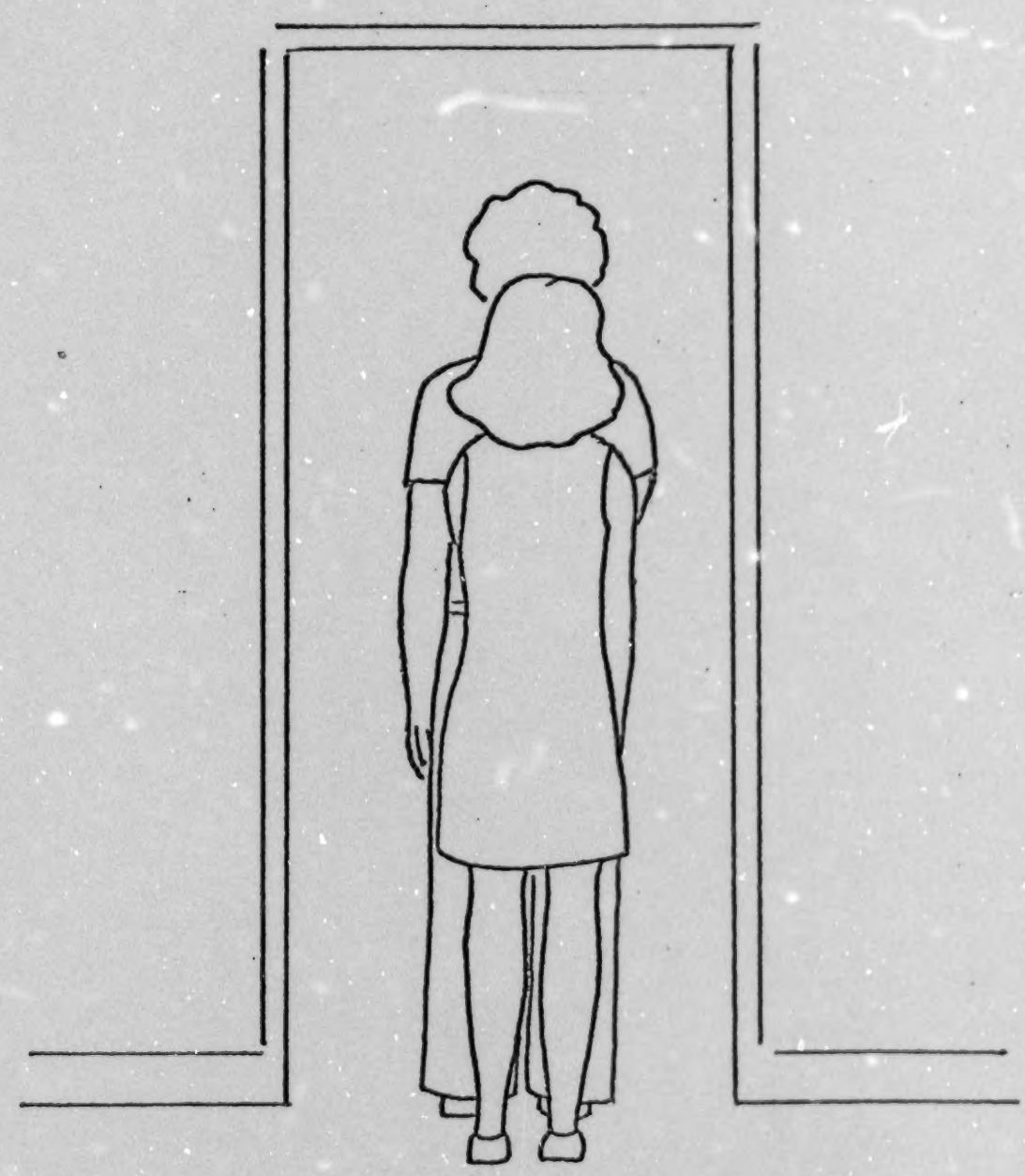
1. The sighted guide walks to the edge of the steps perpendicularly.
2. The guide pauses at the edge of the first step. The guide may tell the blind person that there are "up" or "down" stairs.
3. The blind person may hold onto the handrail when on the stairs.
4. The sighted guide takes the first step. The blind person follows, remaining one step behind.
5. The sighted guide may pause after completing the stairs.



SIGHTED GUIDE: TRAVELING ON STAIRS

SIGHTED GUIDE: TRAVELING THROUGH NARROW PASSAGEWAYS

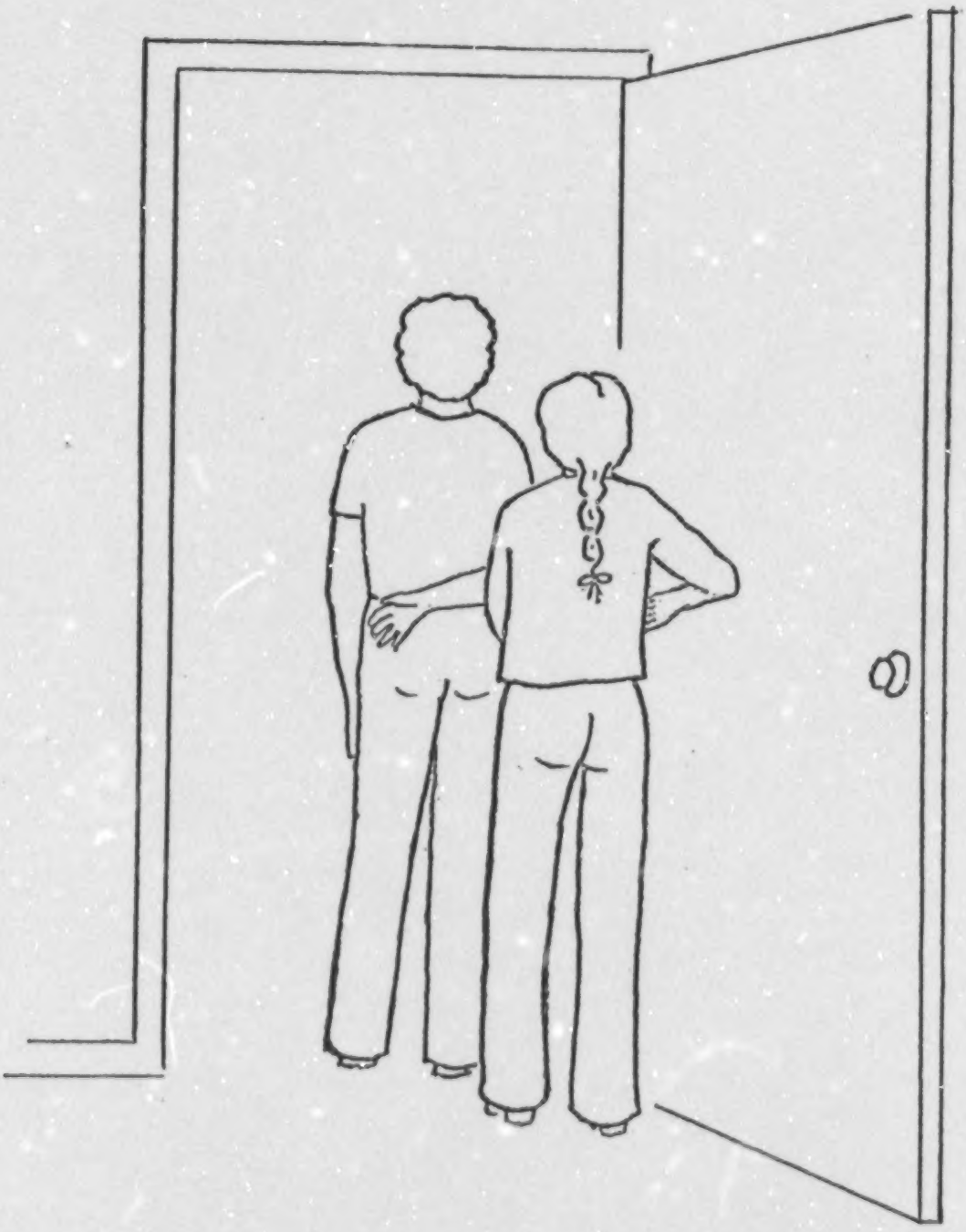
1. The sighted guide moves his arm behind and toward the center of his back.
2. The blind person extends her arm and moves directly behind the sighted guide.
3. After both have passed through the narrow passageway, the sighted guide returns his arm to the normal position.



SIGHTED GUIDE: TRAVELING THROUGH NARROW PASSAGEWAYS

SIGHTED GUIDE: TRAVELING THROUGH DOORWAYS

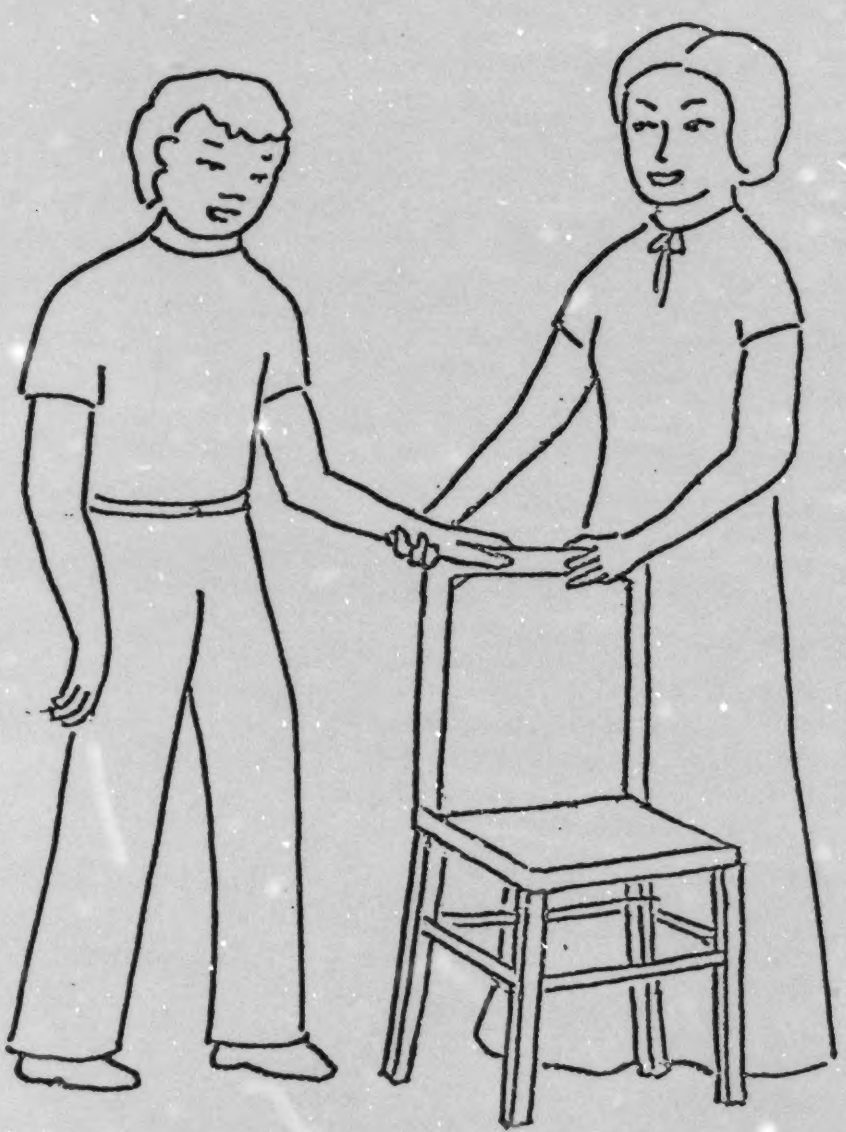
1. For smooth door opening and closing, the sighted guide should have the blind person grip the guide's arm which is closest to the hinge side of the door.
2. If necessary the sighted guide will ask the blind person to change sides and grip the other arm.
3. The sighted guide opens the door with the arm that the blind person is holding; this allows the blind person to become aware of the location of the door handle and the opening direction of the door.
4. When the sighted guide pulls or pushes the door, the blind person protects herself by extending her arm at an obtuse angle in front of the body. Her forearm is held at chest level, horizontal to the ground. Her palm is rotated outward, keeping her fingers relaxed and together. Her hand and forearm should be in straight alignment and kept in a constant position until she contacts the door. She should avoid groping for the door.
5. The sighted guide walks through the doorway, allowing the blind person to shut the door using her free hand.



SIGHTED GUIDE: TRAVELING THROUGH DOORWAYS

SIGHTED GUIDE: SEATING A BLIND PERSON

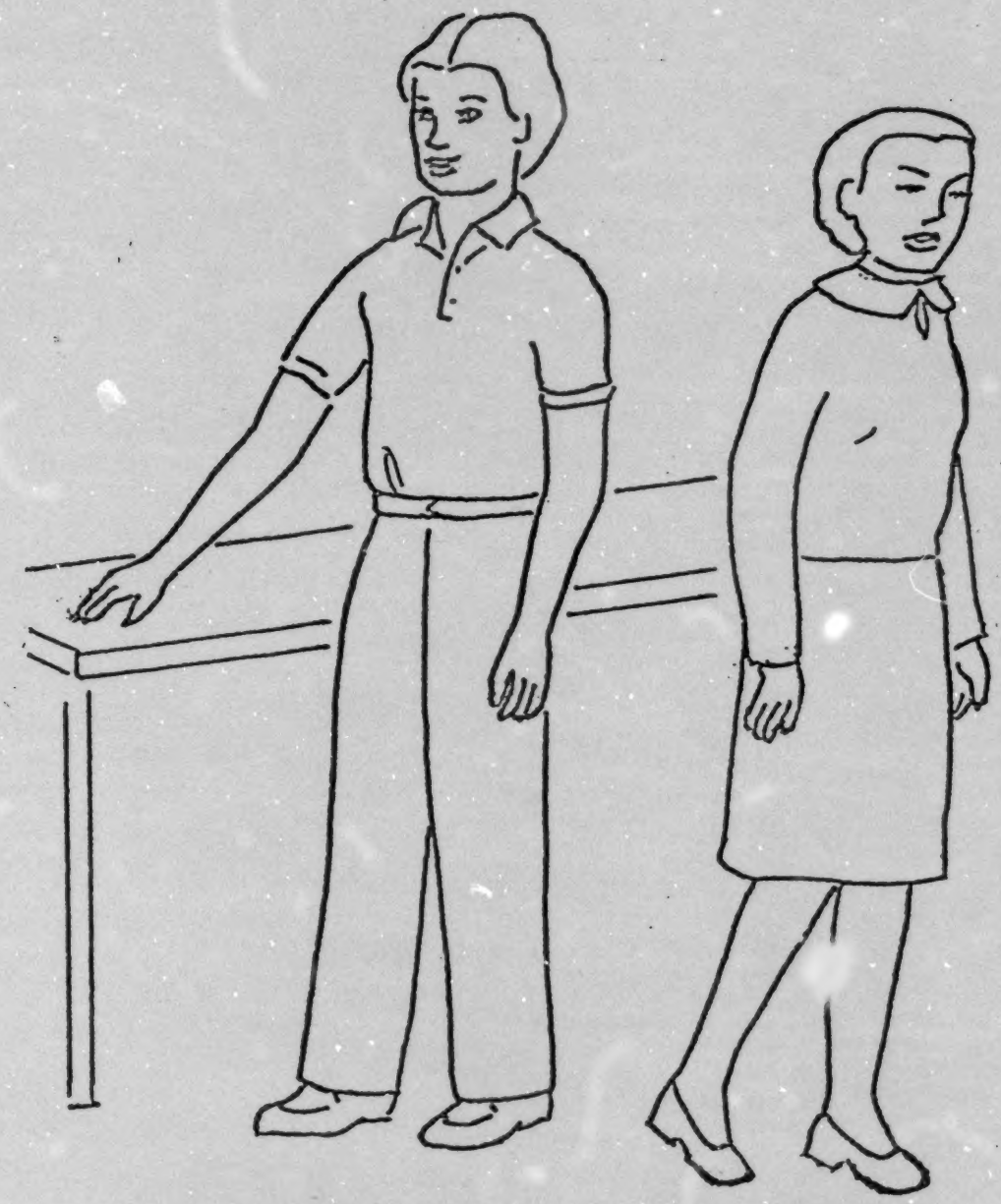
1. The sighted guide should explain the arrangement of chairs and presence of any obstruction, such as table, desk, etc.
2. Using proper sighted guide method, the guide brings the blind person close to the chair.
3. The sighted guide puts the blind person's hand on the back of the chair.
4. The blind person clears the seat with his free hand and seats himself.
5. The sighted guide never pushes the blind person into the chair.



SIGHTED GUIDE: SEATING A BLIND PERSON

SIGHTED GUIDE: LEAVING A BLIND PERSON

1. If the sighted guide leaves a blind person, she should tell him that she is leaving.
2. Do not leave a blind person standing in space. Leave him touching a wall, a piece of furniture or something solid.
3. The sighted guide should make sure the blind person knows his location before leaving him.



SIGHTED GUIDE: LEAVING A BLIND PERSON

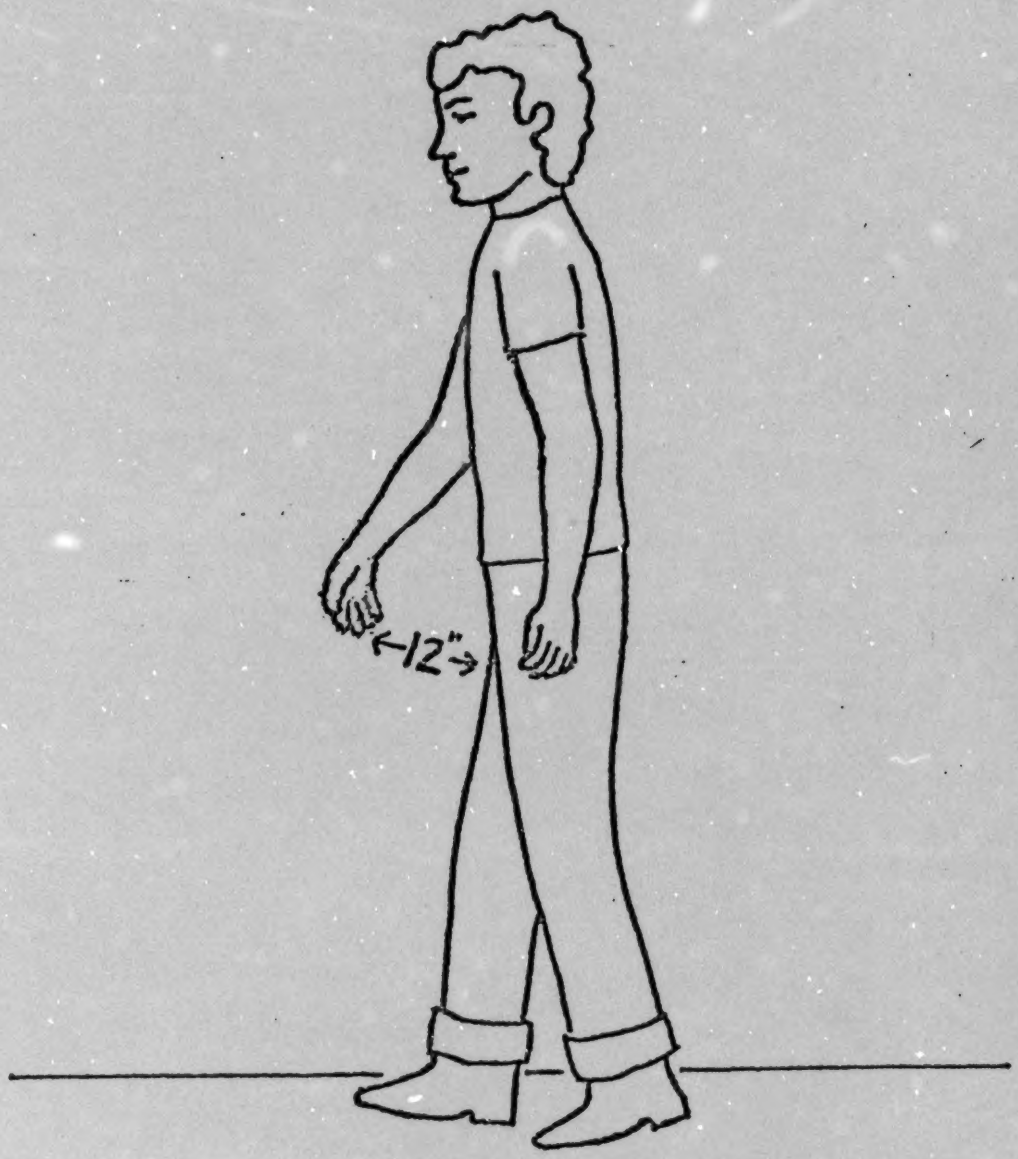
SECTION II - PROTECTIVE TECHNIQUES

FOLLOWING A WALL BY TRAILING - SIDE VIEW

1. The blind person trails the wall with the hand which is closest to the wall.
2. The blind person lightly touches the wall with the back of his hand, with fingers aimed downward.
3. The fingers are kept close together, relaxed and bent a little toward the palm of the hand. This is to protect the fingers.
4. The hand is held at hip height and twelve inches in front of the body. The arm is straight but relaxed at the elbow.

NOTE: a. Trailing should be done along the right side of hallways in order to move with the normal flow of traffic.

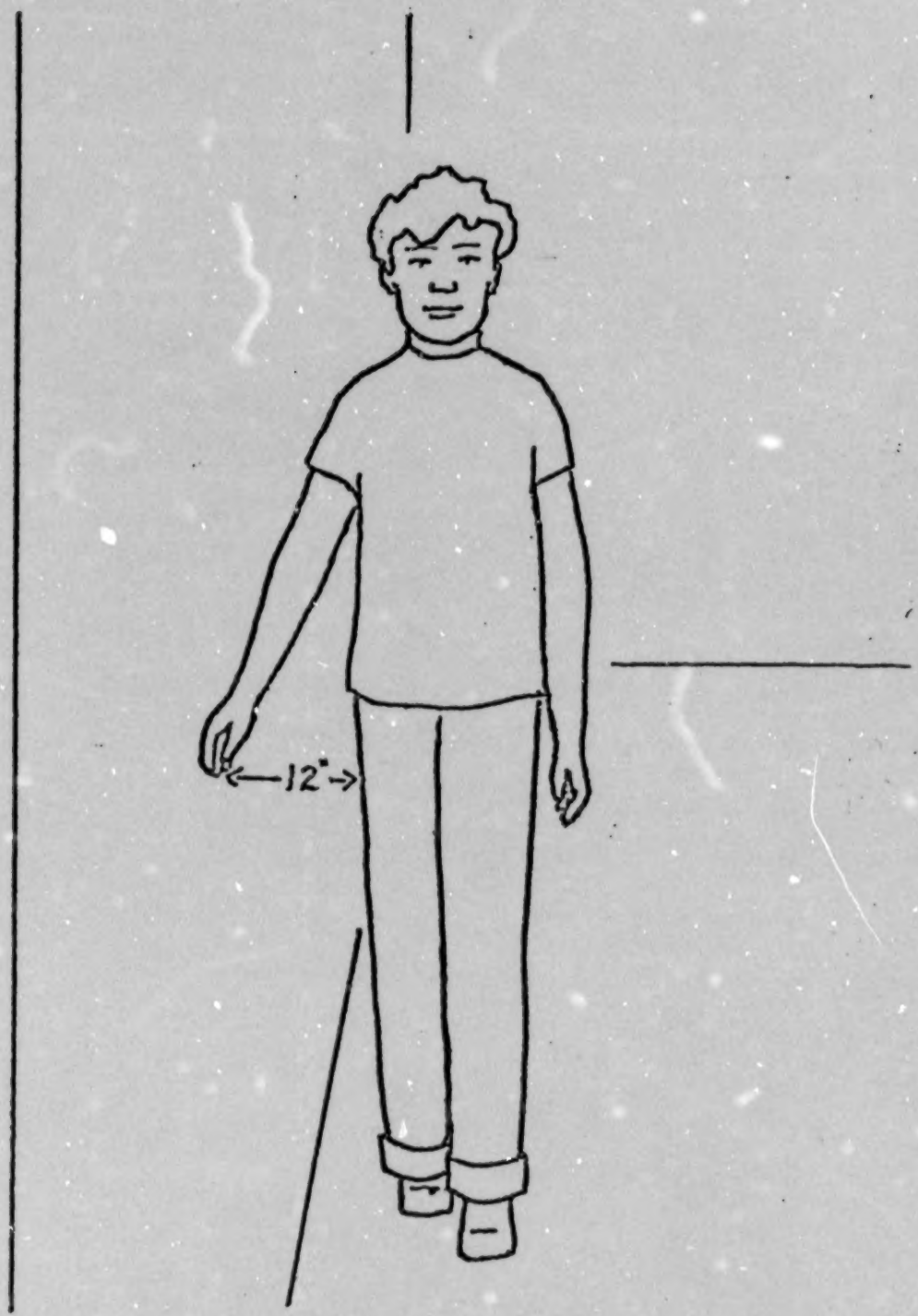
b. A desk or table should be trailed along the side to avoid disturbing objects which may be on the desk or table top.



FOLLOWING A WALL BY TRAILING - SIDE VIEW

FOLLOWING A WALL BY TRAILING - FRONT VIEW

1. The blind person trails the wall with the hand which is closest to the wall.
2. The blind person lightly touches the wall with the back of his hand, with fingers aimed downward.
3. The fingers are relaxed and bent a little toward the palm of the hand.
4. The arm is straight but relaxed at the elbow. The trailing hand is held at hip height and twelve inches in front of his body.
5. The blind person should trail along the wall with the body not more than twelve inches away from the wall.



FOLLOWING A WALL BY TRAILING - FRONT VIEW

FOLLOWING A WALL BY TRAILING

1. The blind person trails the wall with the hand which is closest to the wall.
2. The blind person lightly touches the wall with the back of her hand, with fingers aimed downward.
3. The fingers are kept close together, relaxed and bent a little toward the palm of the hand. This is to protect the fingers.
4. The arm is straight but relaxed at the elbow. The trailing hand is held at hip height and twelve inches in front of the body.
5. The person should trail along the wall with the body not more than twelve inches away from the wall.
6. Trailing is used to maintain a straight line of travel or to locate a specific object.

FOLLOWING A WALL BY TRAILING

LOWER PROTECTIVE ARM

1. The blind person's arm is positioned diagonally across the body to provide lower body protection.
2. The blind person's arm is kept straight and relaxed with the hand six to eight inches in front of the opposite thigh.
3. The palm faces the body, and the fingers remain close together and relaxed.

NOTE: a. This technique enables the blind person to locate and protect herself from objects at waist level.

LOWER PROTECTIVE ARM

UPPER PROTECTIVE ARM - FRONT VIEW

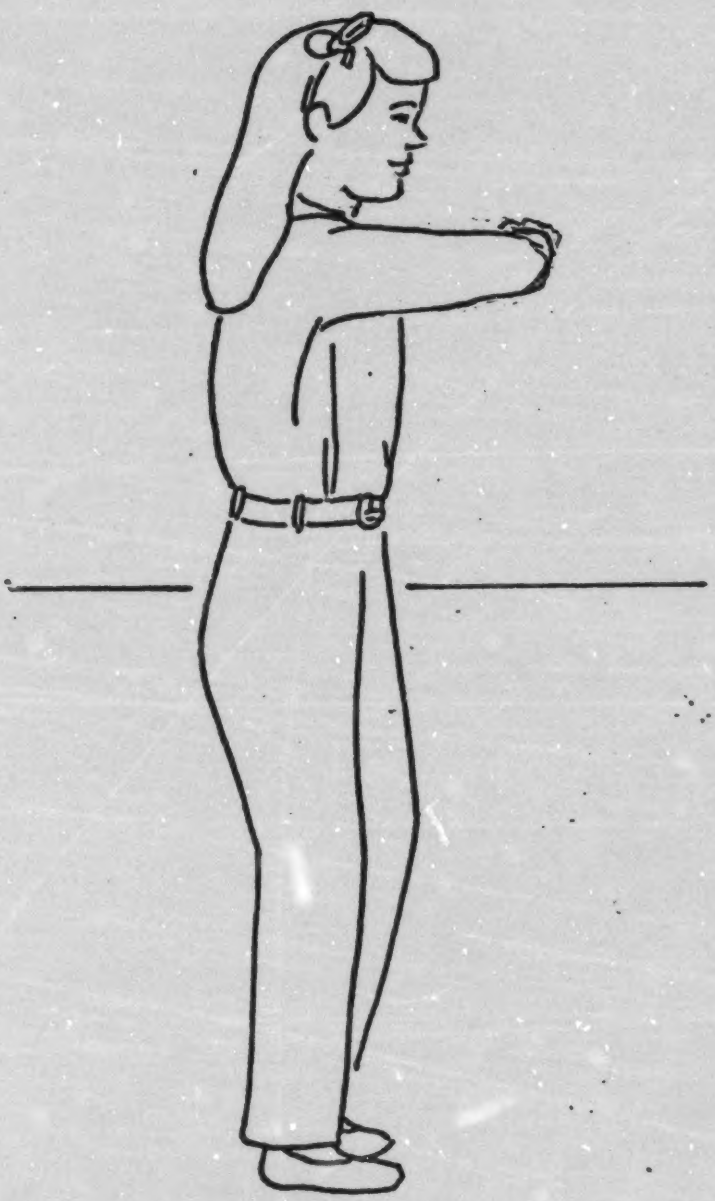
1. To protect the upper part of her body the blind person uses her arm.
2. The blind person holds her arm parallel to the floor at shoulder height and bends her elbow so that her forearm extends across the entire width of her body. The fingers should extend slightly beyond the shoulder.
3. The palm faces the direction of movement.
4. The fingers are relaxed and held close together.

NOTE: a. This technique enables the blind person to detect vertical objects which may be encountered by the upper region of the body. (Especially useful to detect half open door.)

UPPER PROTECTIVE ARM - FRONT VIEW

UPPER PROTECTIVE ARM - SIDE VIEW

1. The blind person positions her arm parallel to the floor at shoulder level.
2. The palm faces the direction of movement six to twelve inches in front of the body.
3. The fingers are relaxed and held close together.



UPPER PROTECTIVE ARM - SIDE VIEW

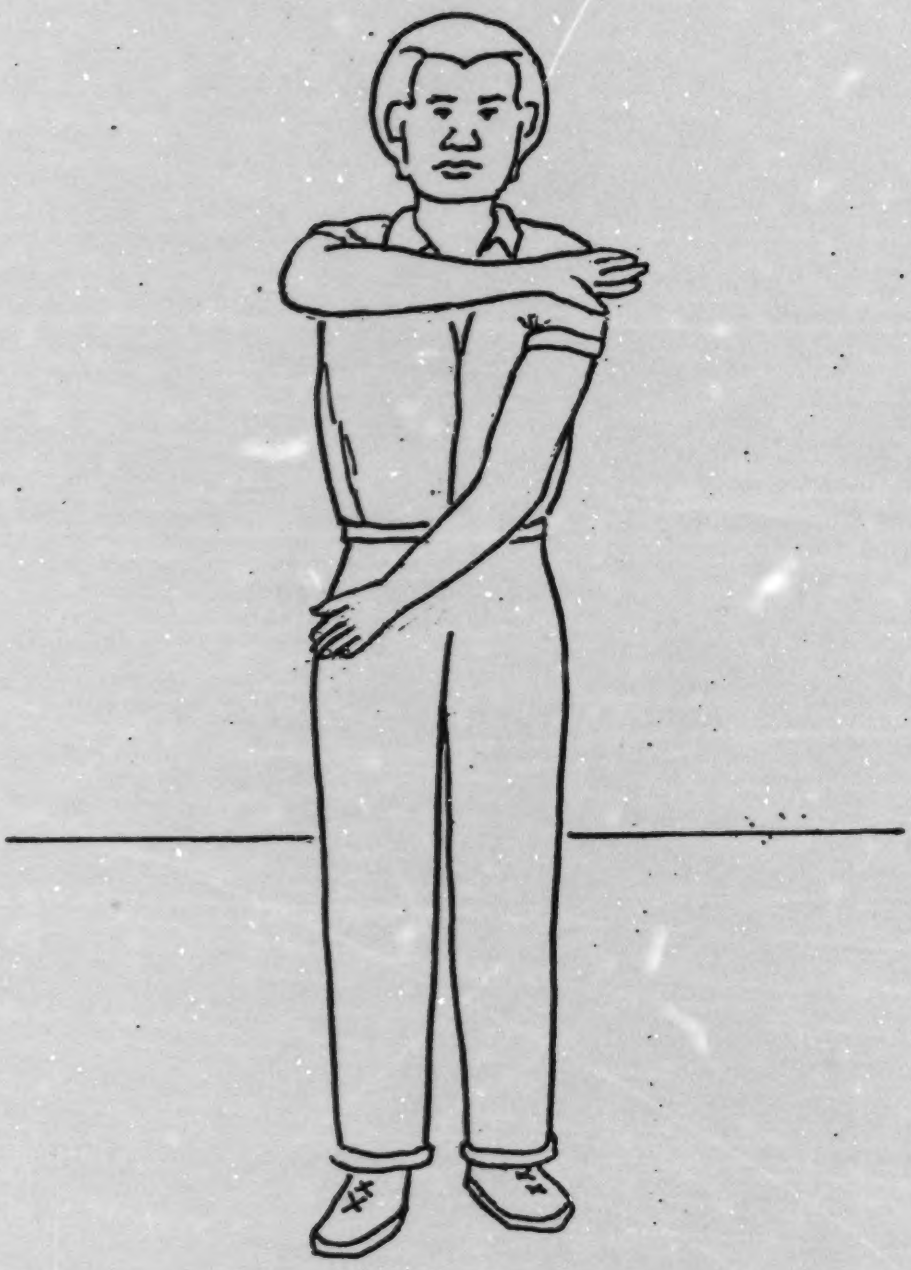
LOWER AND UPPER PROTECTIVE ARMS

1. Lower Protective Arm:
   a. One arm of the blind person is positioned diagonally across the body to provide lower body protection.
   b. This arm is kept straight and relaxed with the hand positioned six to eight inches in front of the opposite hip.

NOTE: 1. The palm faces the body and the fingers are relaxed and held close together.

2. Upper Protection Arm:
   a. The other arm is used to protect the upper part of the body.
   b. This arm is held parallel to the floor at shoulder height and bent at the elbow so that the forearm extends across the entire width of the body. The fingers should extend slightly beyond the shoulder.

NOTE: 1. This technique provides maximum protection of the body in unfamiliar surroundings.
2. This position is usually very tiring and most people will be able to maintain it for a limited time.



LOWER AND UPPER PROTECTIVE ARMS

UPPER PROTECTIVE ARM AND TRAILING

1. Upper Protective Arm:
   a. The blind person holds her upper protective arm parallel to the floor at shoulder height and bends her elbow so that her forearm extends across the entire width of her body. The fingers should extend slightly beyond the shoulder.
2. Trailing Hand:
   a. The blind person trails the wall or object with the hand nearest the wall.
   b. The blind person lightly touches the wall with the back of her trailing hand, with fingers aimed downward, relaxed and bent a little toward the palm.
3. Upper Protective Arm and Trailing:
   a. Trailing is used to maintain a straight line of travel or to locate a specific object.
   b. The upper protective arm position is usually very tiring for the student. It should be encouraged when obstacles might be expected.

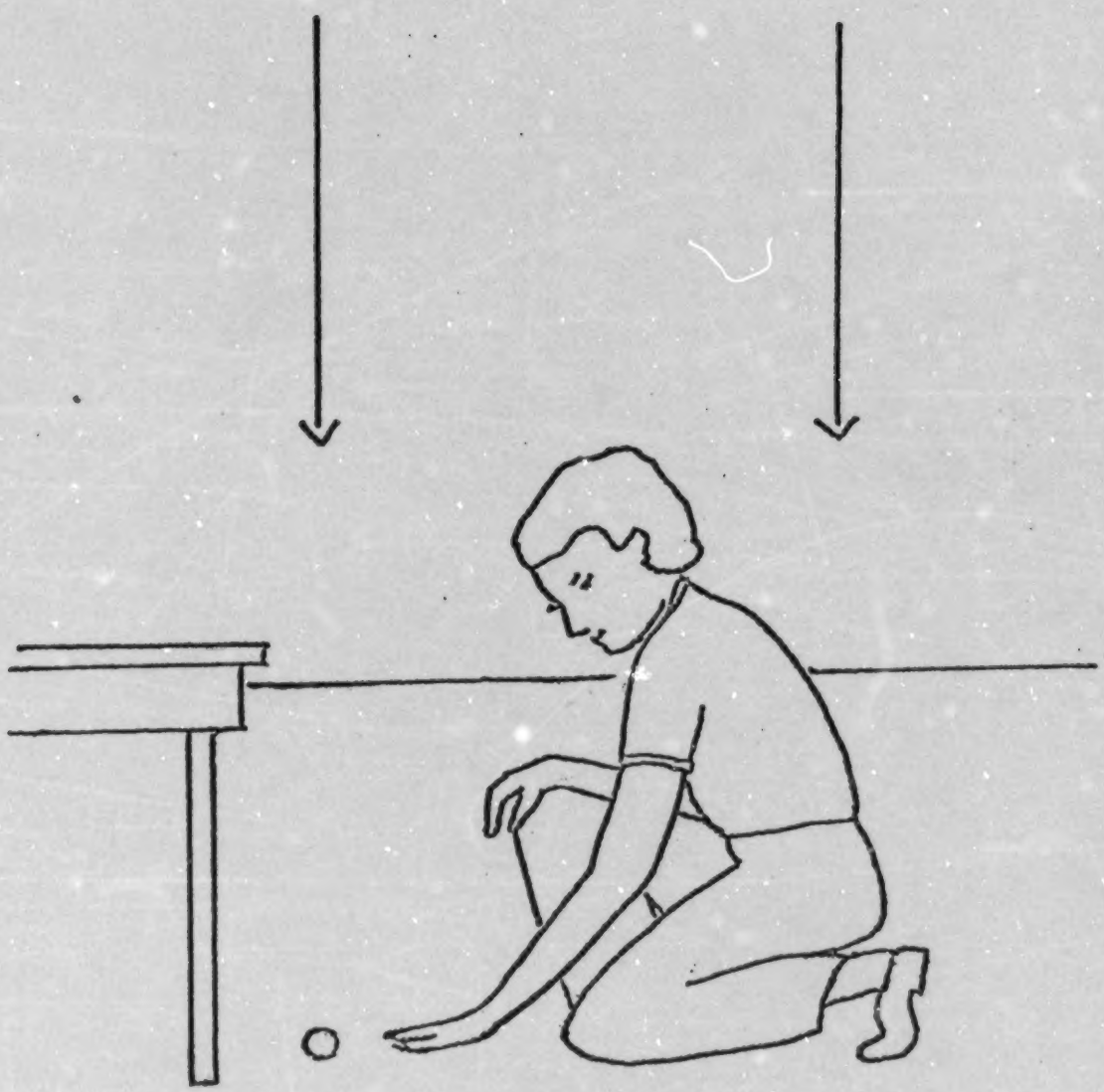
NOTE: a. Protective upper arm dects partially opened doors and other obstacles.

UPPER PROTECTIVE ARM AND TRAILING

SECTION III - RETRIEVING A DROPPED OBJECT

RECOVERING A DROPPED OBJECT

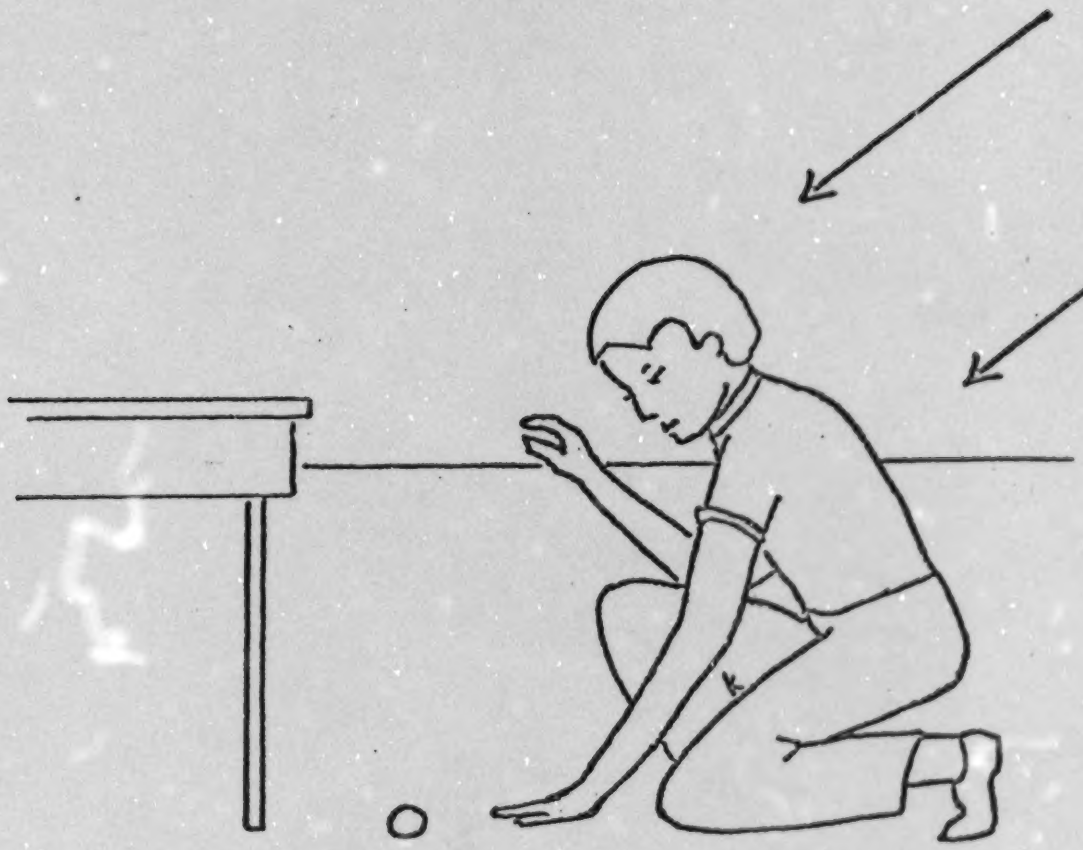
1. A blind person stops immediately after the object is dropped and turns to face the object.
2. If the object makes a sound and rolls away, the blind person moves in the direction of the sound.
3. The blind person should try to stop just before he reaches the object.
4. To keep from bumping his head, the blind person bends his knees and keeps the head above his hips.



RECOVERING A DROPPED OBJECT

PROTECTION OF HEAD WHILE BENDING FORWARD

1. When bending, the blind person should protect his head by extending an arm in front of his face and head.



PROTECTING THE HEAD WHILE BENDING FORWARD

SEARCHING FOR A DROPPED OBJECT

1. A blind person should search slowly to avoid passing over the object or knocking it out of reach.
2. A blind person uses a systematic searching pattern, beginning where a foot or knee contacts the ground.
3. If he does not find the object in the area directly in front of his body, he should search to the right and to the left before moving forward.

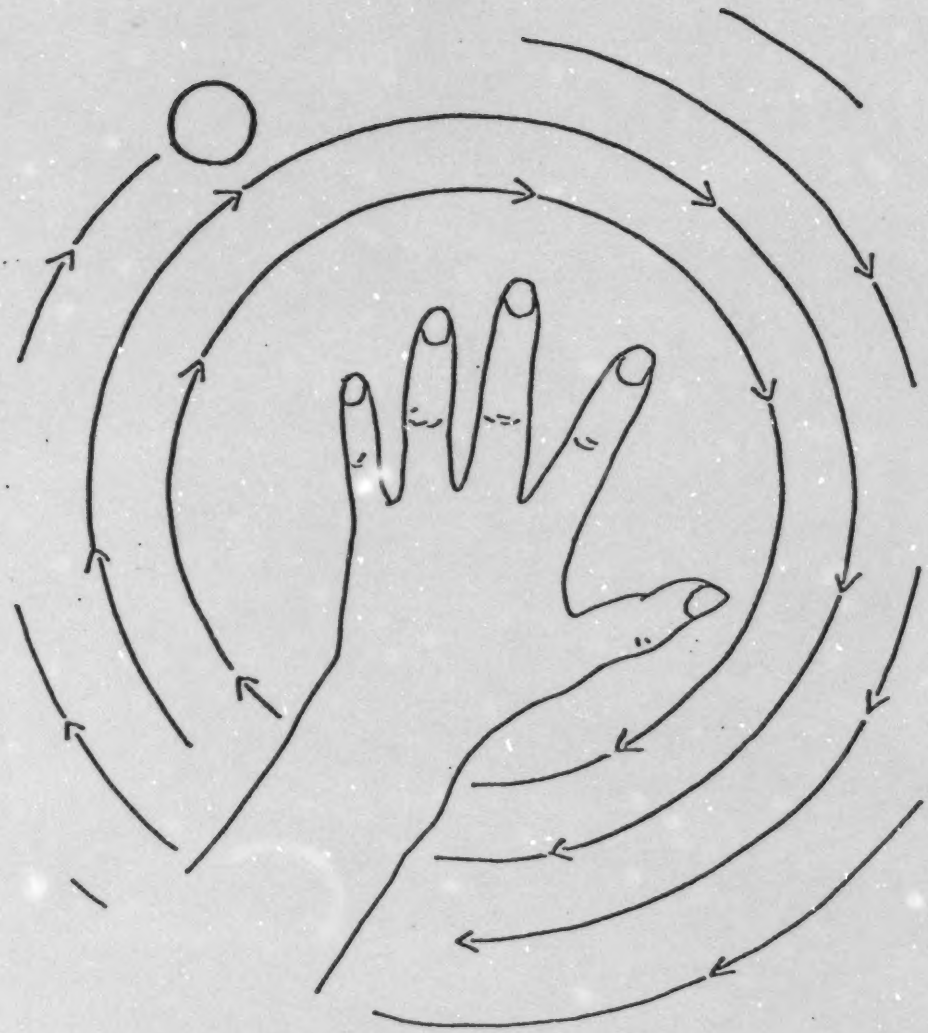
NOTE: a. If it is necessary to move in order to search another area, the blind person should use his arms to protect his body and head.

SEARCHING FOR A DROPPED OBJECT

CIRCULAR HAND MOTION PATTERN USED WHEN SEARCHING FOR A DROPPED OBJECT

1. When searching on a smooth surface for a small object such as a coin, the blind person should place his/her palm flat on the surface.
2. When searching for a dropped object in the grass, the blind person should cup his/her hands and use light contact with finger tips.
3. The search should begin with a small circle that gradually becomes larger with overlapping strokes.
4. Both hands may be used in the search.

NOTE: a. Searching should be done slowly to avoid passing over the object or knocking it out of reach.

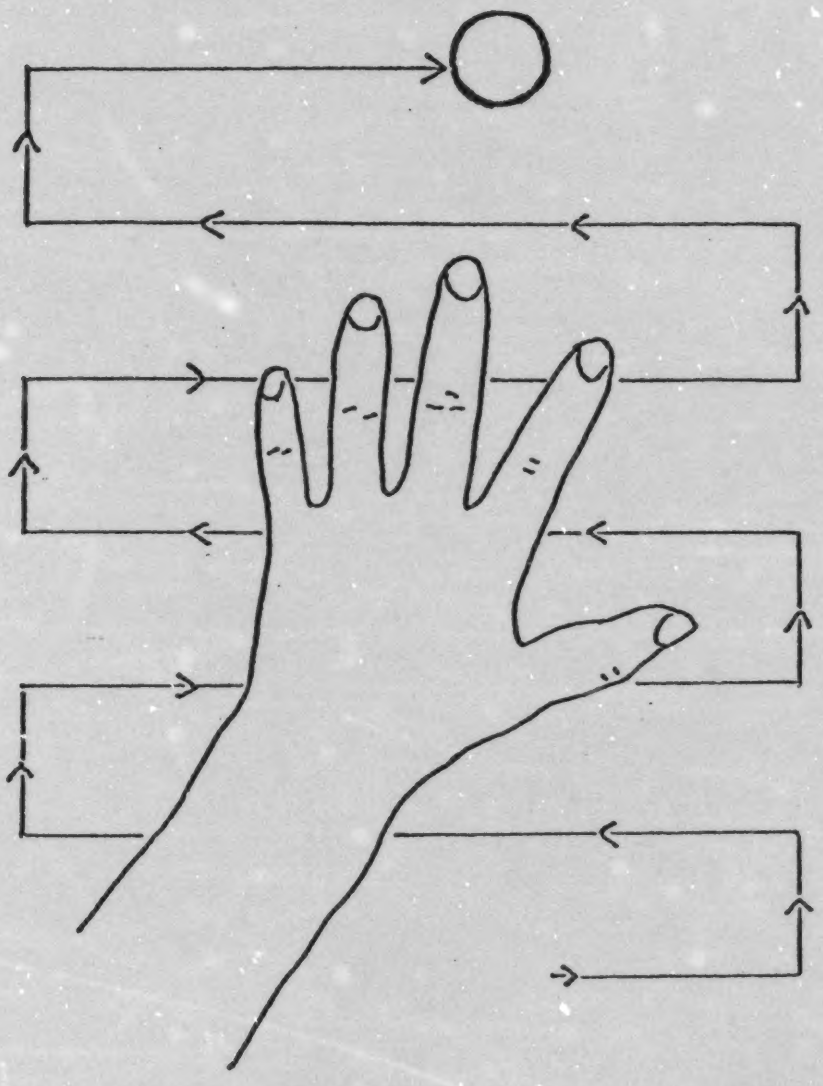


CIRCULAR HAND MOTION PATTERN USED WHEN SEARCHING FOR A DROPPED OBJECT

GRID HAND MOTION PATTERN USED WHEN SEARCHING FOR A DROPPED OBJECT

1. Sweep the hand from side to side over the surface.
2. Move the hand forward at the end of each sideways stroke so that it overlaps the area covered by the last stroke.
3. Cover the area to the right and left of the body with similar movements before moving the body forward.

NOTE: a. Any search pattern that is systematic and covers the area throughly may be used.



GRID HAND MOTION USED WHEN SEARCHING
FOR A DROPPED OBJECT

SECTION IV - CANE TECHNIQUES

GRIP USED WITH A CANE - FRONT VIEW

1. The blind person should extend the arm and hand as if to "shake hands" with the grip.
2. The index finger extends downward on the flat side of the cane grip.
3. A "V" is formed between the index finger and thumb.
4. The other three fingers and thumb wrap around the cane in a relaxed position.

GRIP USED WITH A CANE - FRONT VIEW

GRIP USED WITH A CANE - PALM VIEW

1. The blind person should extend the arm and hand as if to "shake hands" with the grip.
2. The index finger extends downward on the flat side of the cane grip.
3. The other three fingers and thumb wrap around the cane in a relaxed position.
4. The cane rests in the middle of the palm.

GRIP USED WITH A CANE - PALM VIEW

GRIP USED WITH A CANE - SIDE VIEW

1. The blind person should extend the arm and hand as if to "shake hands" with the grip.
2. The index finger extends downward on the flat side of the cane grip.
3. The other three fingers and thumb wrap around the cane in a relaxed position.

GRIP USED WITH A CANE - SIDE VIEW

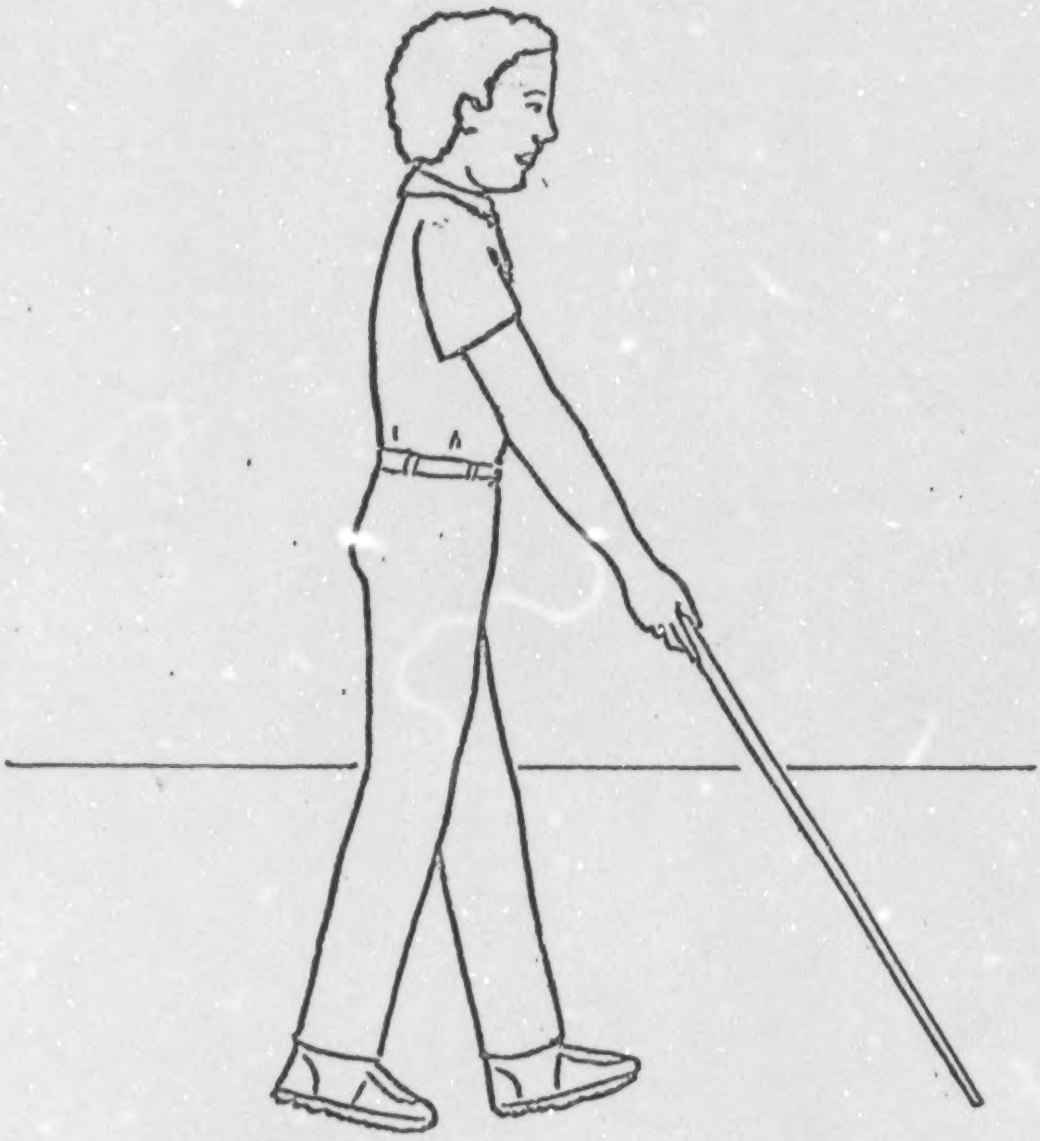
ARM POSITION FOR CANE TRAVEL - FRONT VIEW

1. The elbow should be straight and not locked.
2. The hand is positioned at the midline of the body.

ARM POSITION FOR CANE TRAVEL - FRONT VIEW

ARM, BODY AND CANE POSITION - SIDE VIEW

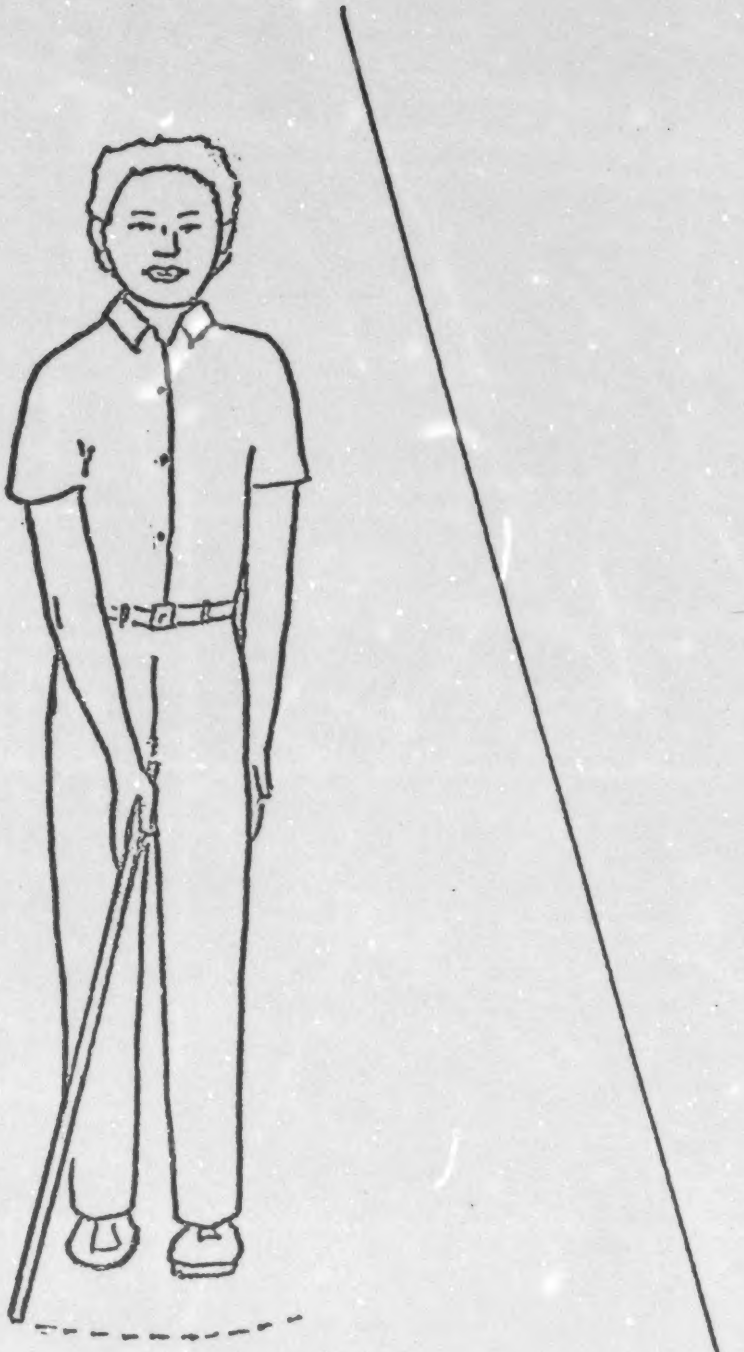
1. The arm-cane combination forms a straight line.
2. The cane is placed ahead of the body.
3. The index finger extends down the cane pointing toward the ground or floor.



ARM, BODY AND CANE POSITION - SIDE VIEW

ARM, BODY AND CANE POSITION - FRONT VIEW

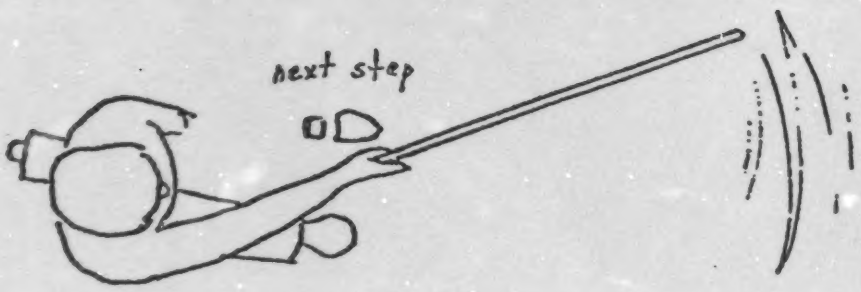
1. The arm-cane combination forms a straight line.
2. The blind person's hand is kept at the midline of the body at all times.
3. The cane is moved in an arc from side to side by using wrist action only.
4. The proper wrist action will move the tip of the cane to a point contacting the ground or floor one inch beyond each shoulder.

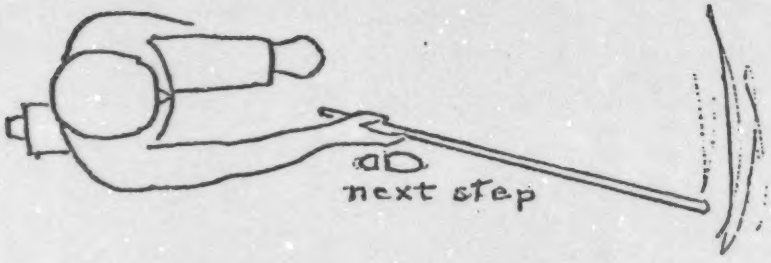


ARM, BODY AND CANE POSITION - FRONT VIEW

CANE TRAVEL - TOP VIEW

1. Cane position when the next step is with the left foot:
   a. Before the blind person steps forward the area must first be cleared with the cane.
   b. Using the cane, the blind person touches the area in front of his left foot. If this area is clear of hazards, he steps forward with his left foot while moving the cane to touch the area in front of his right foot.
2. Cane position when the next step is with the right foot:
   a. After touching the area in front of the right foot and finding it clear of hazards, he steps forward with his right foot while moving the cane to the area in front of his left foot.
3. A definite rhythm of alternate foot and cane must be established. The cane is clearing the opposite side to which he is stepping and clearing a path one step in front of himself, e.g., as he steps with the right foot, he clears in front of the left foot and as he steps with the left foot, he clears in front of the right foot.





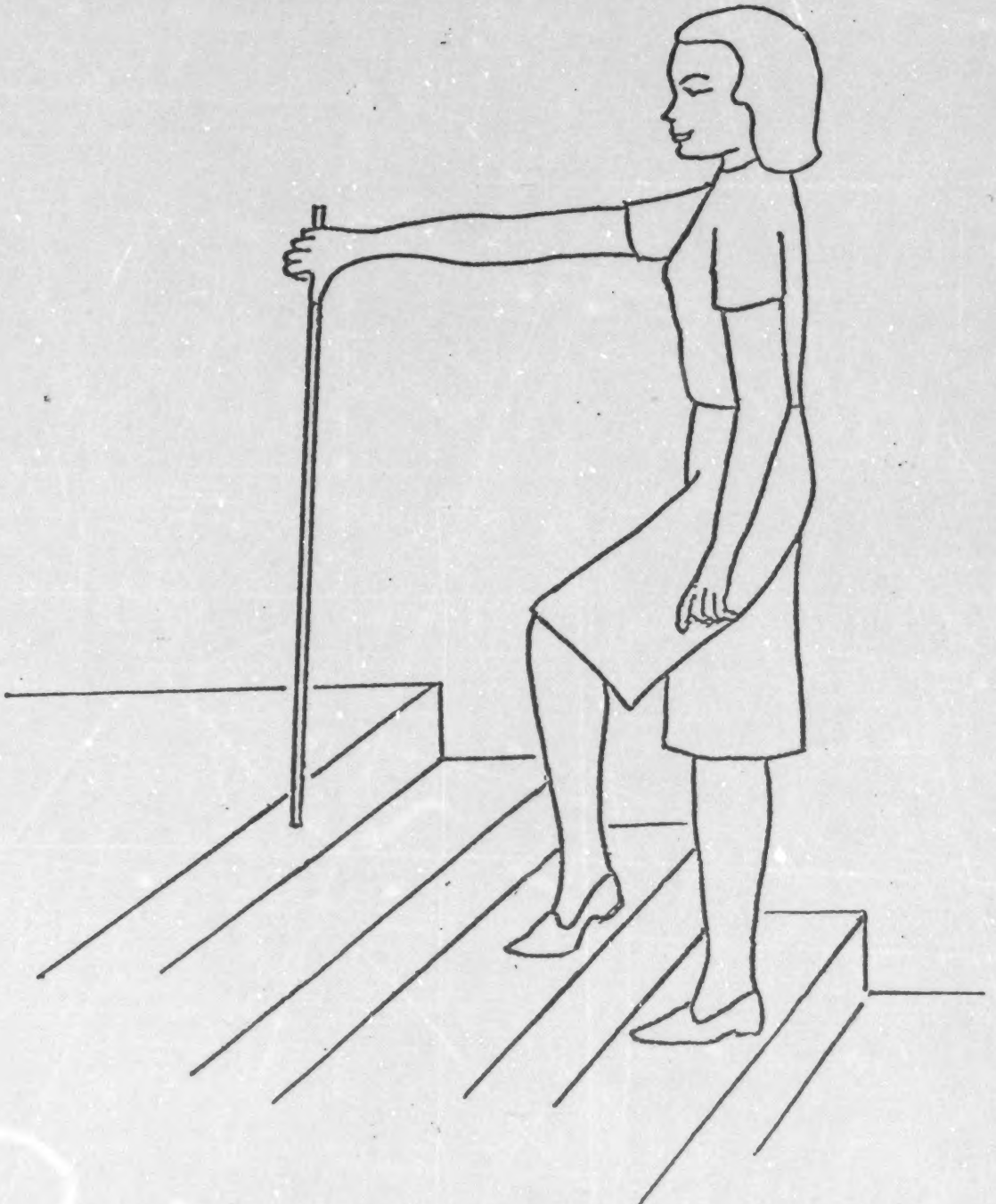
CANE TRAVEL - TOP VIEW

ASCENDING STAIRS - SIDE VIEW

1. The blind person makes contact with the first stair. She then uses her cane to determine the width, height, and length of the first step.
2. The blind person will straighten her arm, raising her hand so the cane will contact the riser two steps ahead.
3. The cane should be maintained in a vertical position as she goes up the stairs.
4. The side of the tip end of the cane will touch the back riser of the stairs. As she moves up the steps the side of the cane will touch the riser on each succeeding step.

NOTE: a. In order to travel with the flow of traffic, the blind person may need to move to the right side of the staircase.

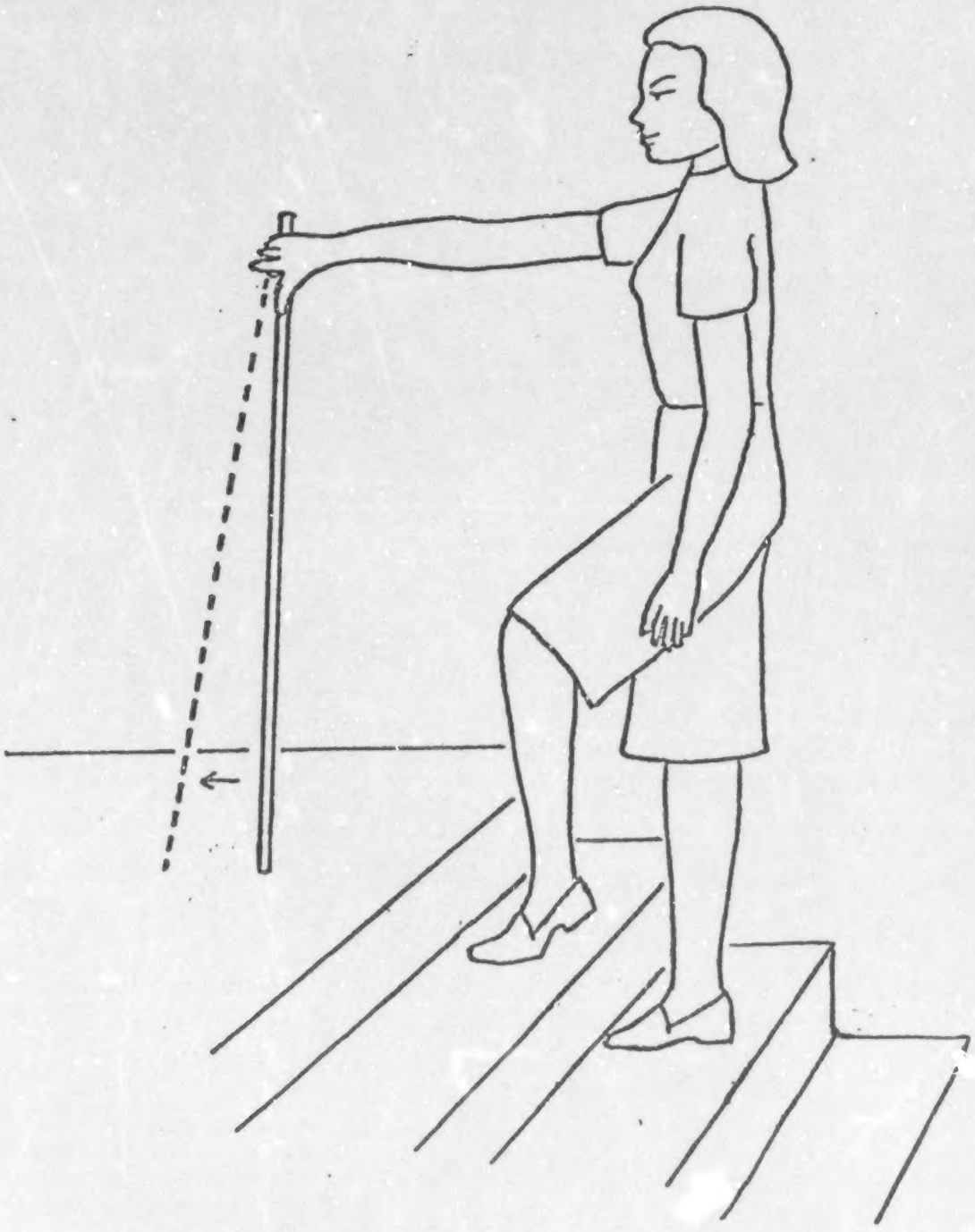
b. If desired the blind person may hold onto the handrail.



ASCENDING STAIRS - SIDE VIEW

ASCENDING STAIRS - TOP STAIR - SIDE VIEW

1. When the blind person reaches the top of the stairs, the tip of the cane will swing free.
2. He should then extend the cane to the left, in front, and to the right to check the area for any hazards.



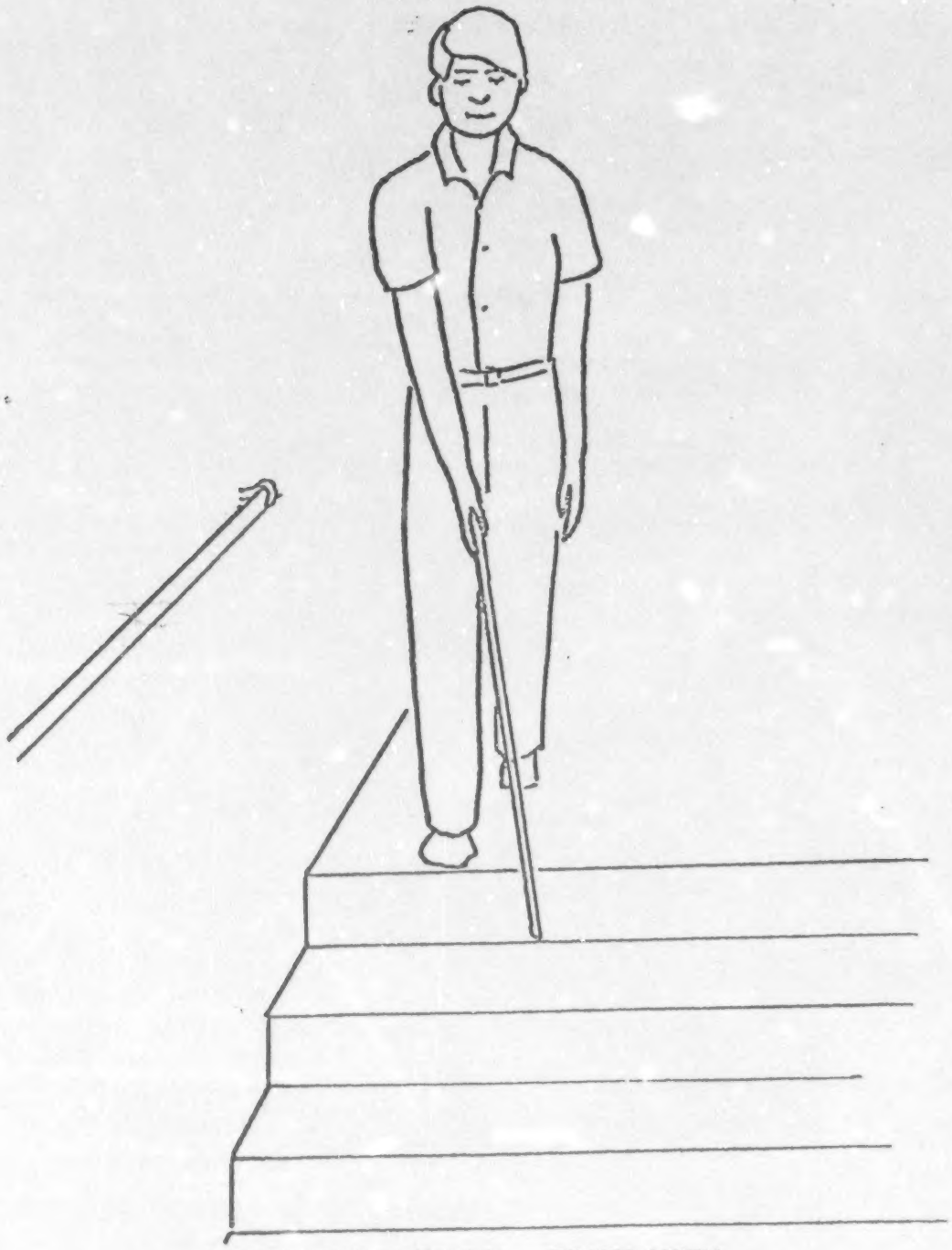
ASCENDING STAIRS - TOP STAIR - SIDE VIEW

DESCENDING STAIRS - FRONT VIEW

1. If the blind person is using the cane correctly, he will detect the presence of steps.
2. The blind person then stops, holds the cane tip against the riser of the first step while he advances and squares himself to the edge of the first step.
3. With his cane, the blind person clears the stair and checks the width, depth and length of the first step.
4. The blind person holds the cane diagonally in front of his body.
5. The arm should be relaxed and the cane tip held just high enough to clear the top of each succeeding step as he descends.

NOTE: a. In order to travel with the flow of traffic, the blind person may need to move to the right side of the staircase.

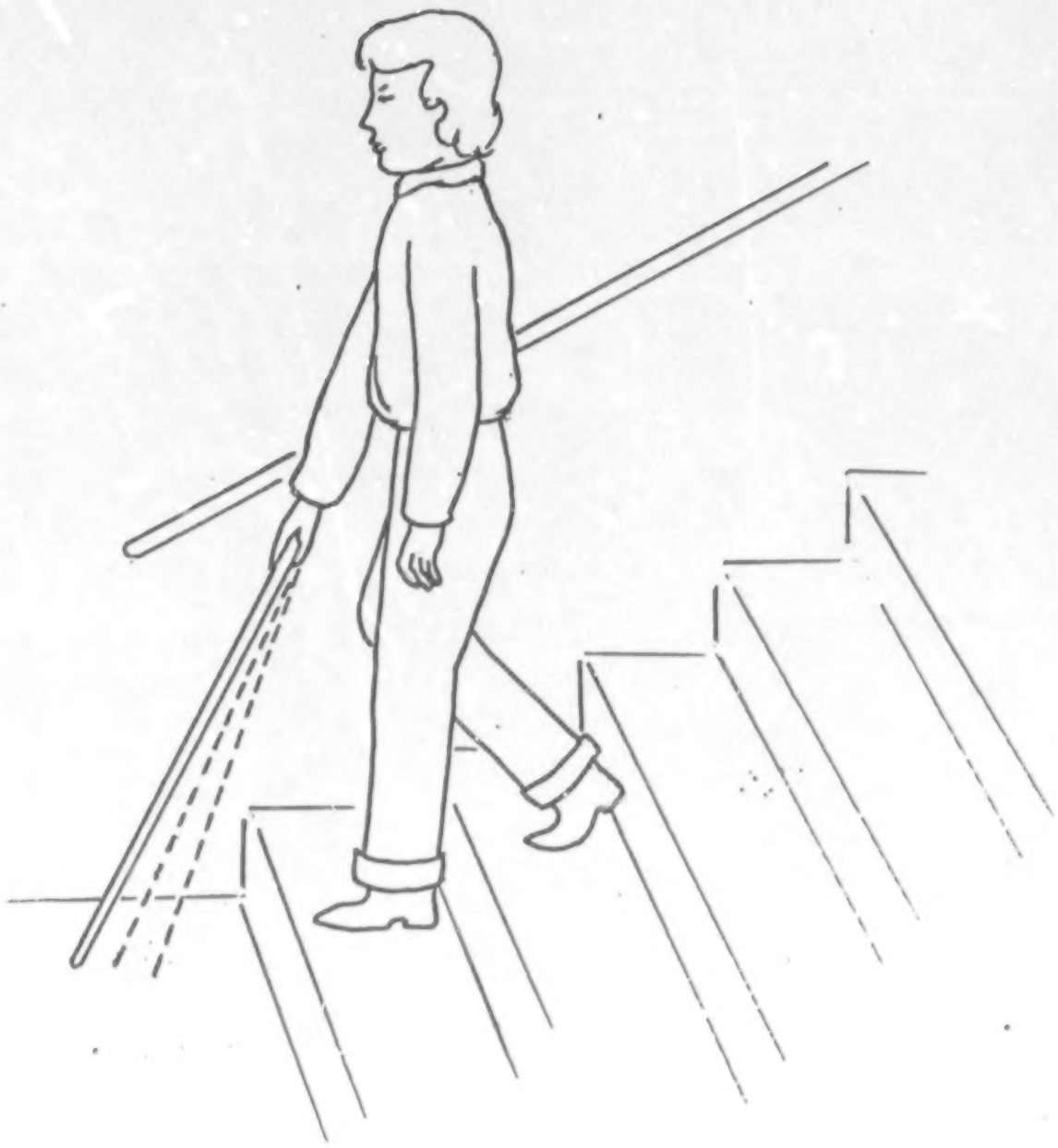
b. If desired the blind person may hold onto the handrail.



DESCENDING STAIRS - FRONT VIEW

DESCENDING STAIRS - BOTTOM STAIR - SIDE VIEW

1. As the blind person nears the last step, the cane will touch the floor.
2. The cane will slide forward and not drop down, which tells the blind person that he has reached the last step.
3. The blind person should then clear the area with his cane, and resume travel.



DESCENDING STAIRS - BOTTOM STAIR - SIDE VIEW

END

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